Worldwide Joint Training and Scheduling Conference

National Nuclear Security Administration (NNSA)

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23MAR09

Agenda

- Overview of DOE response capabilities
  - Crisis response
  - Consequence management response
- Generic DoD support for DOE response assets
- Specific DoD support for DOE response assets
- Exercise Schedule

Exercise Program Mission

- **Ensure that NNSA emergency response assets continually maintain the highest states of readiness consistent with our national security mission**
  - NNSA maintains visibility of readiness levels through exercises, training and drills, special events and national security special events.

- **Validate policy, training, corrective actions, and assess the capabilities of the emergency response assets that support the United States Government's counter terrorism, consequence management and nuclear/radiological response programs**

Strategic Program Goals

- Validate DOE/NNSA's Radiological Emergency Response Assets
- Develop a domestic exercise program that synchronizes with the Department of Homeland Security's National Exercise Program
- Enhance the capability of the Nuclear Incident Response Team (NIRT) and its senior leadership
- Develop and implement a domestic and international outreach program that promotes:
  - Domestic interagency and international partnerships
  - Marketing, awareness and planning/training development
  - Cultivation of mutual agreements
- Develop an international exercise and events program that synchronize with DOS, GI, bi-lateral relationships, etc.

Program Scope

- Exercises are defined as:
  - Any national-level exercise that requires asset participation
  - No-notice exercises
  - Tier, I, II, III exercises
- Exercises will be coordinated at an annual exercise planning conference with all asset Program Managers.
- Further develop the no-notice drill and exercise (NNX) program to validate the DOE/NNSA emergency response assets
- Further develop outreach program support for Domestic, International, and Global Initiative for Combating Nuclear Terrorism.

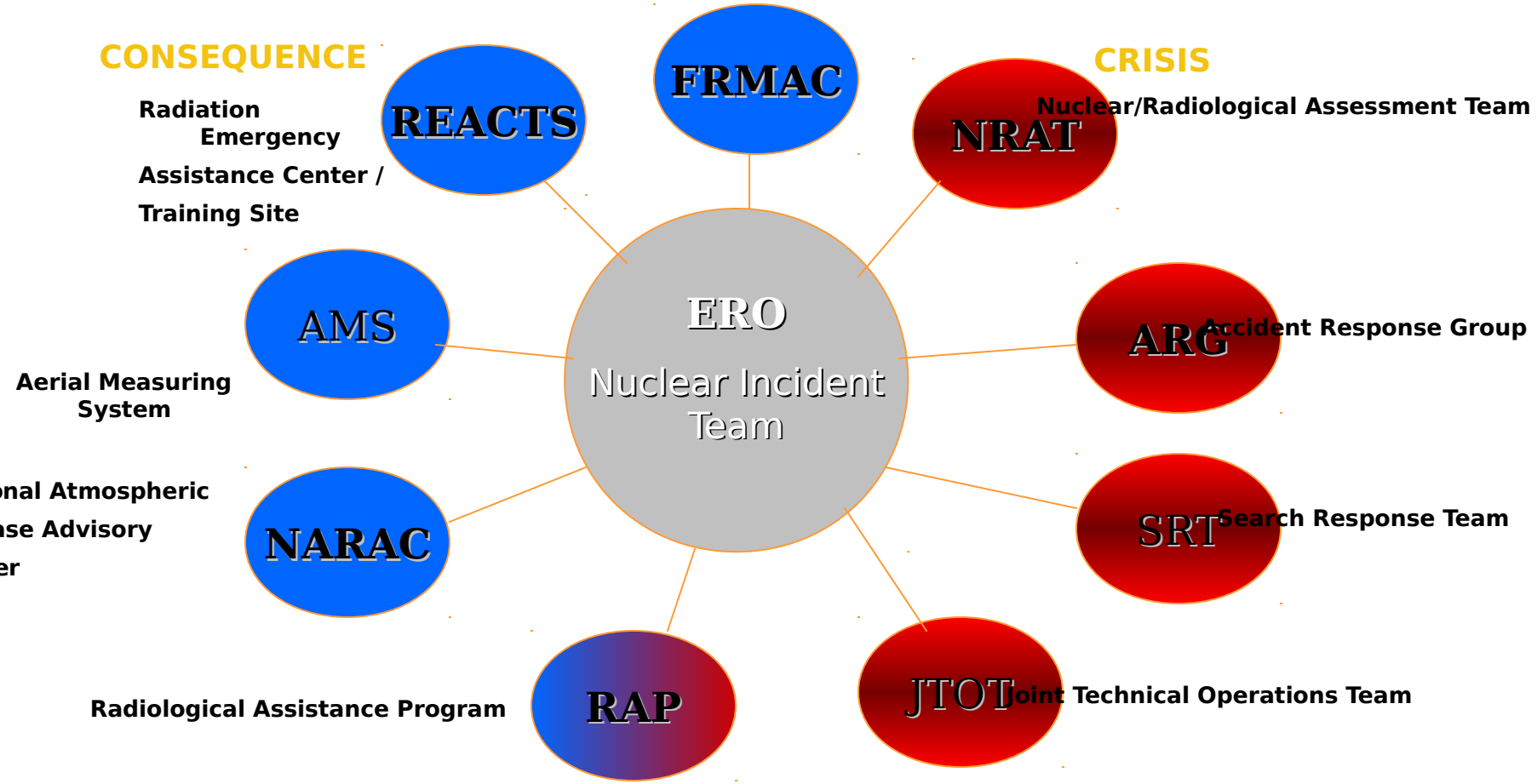
DOE/NNSA Assets

- **Expert technical advice from the DOE complex in response to:**
  - **Nuclear weapon accidents and significant incidents**
  - **Radiological accidents**
  - **Lost or stolen radioactive materials**
  - **Acts of nuclear terrorism**

- **Provide access to nuclear weapons design and production capabilities**

- **Deployable capabilities, configured for a rapid response to any specific nuclear accident or incident**

DOE/NNSA Assets



Nuclear / Radiological Advisory Team

ovides an emergency response
pability in the resolution of
mestic and international
clear incidents

On-Scene Command & Control

Scientific & Technical Advice
Coordination of Follow-On DOE Suppor
Limited Mobile Search (Backpack)
Radiological Identification w/ HPGe
Secure Data / Voice Communication
Logistics for Follow-On Assets & Resou

DOE Component of:

Foreign Emergency Support Team (FE
Domestic Emergency Support Team (D
National Security Special Event (NSSE
Maritime Search capabilities

6-Person Team

Accident Response Group

rovides technical response to
I.S. nuclear weapons accidents

Initial Response – Phase I

NNSA Advisory Interface / Support EOD

Initial Risk Assessment

Determine Weapon Damage

6-Person Team

Main Response – Phase II

Deliberate and Safe Weapon Recovery

12-Hour Operational Capability

38-Person Team

ARG Home Team

Joint Technical Operations Team

ides scientific-technical personnel and
pment during a nuclear or
ological WMD terrorist incident

Tactical Operations – Phase I

- **NNSA Advisory Interface**
- **Initial Render Safe Operations**
- **Limited Safety Assessment (Criticality)**
- **Safe-to-Move Decision**

Advanced Tactical Operations – Phase II

- **Continued Render Safe Operations**
- **Safety Review**
- **Safe-to-Ship Decision**

Disposition Operations – Phase III

- **Nuclear Device Characterization**
- **Advanced Radiography and Diagnostics**

JTOT Home Team

Search Response Team

ovides assets for complex search
perations using both technical and
erational expertise

Operational Capability

- Backpack
- Maritime
- Aerial
- Vehicle

Technical Capability

- Gamma & Neutron systems
- GIS

Apprentice Searcher Training Capability

7-Person Team

SRT Home Team

Radiological Assistance Program

vides first response capability to deral, State, local governments for idents involving radiological ergencies

Search for Radiological Material

First Responders

- **8 member team**

Advise on Public Safety

Respond within 4-6 hours

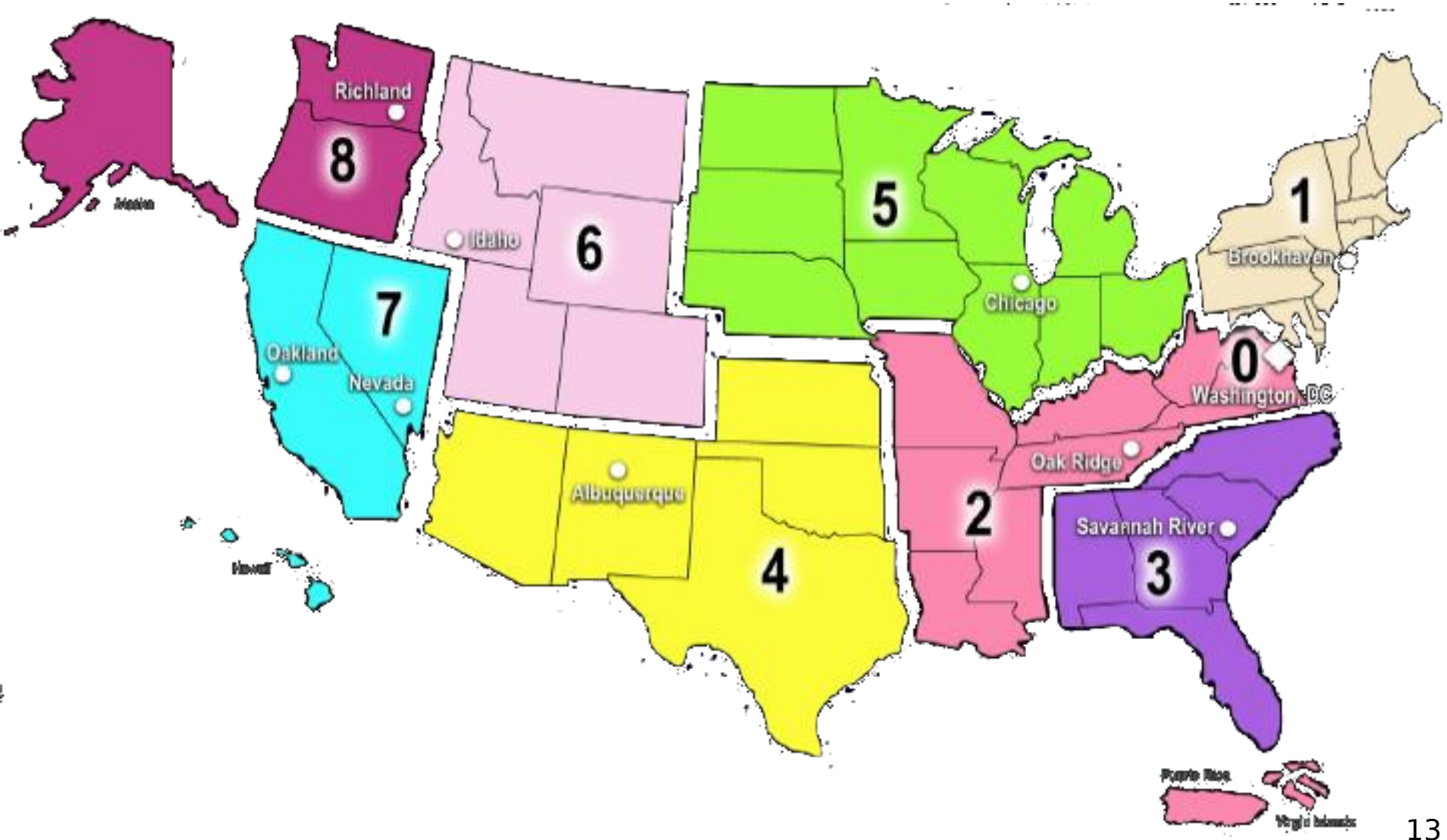
Characterize Radiation Environment

- **Initial Assessment**
- **Area Monitoring**
- **Contamination Control**
- **Decontamination**

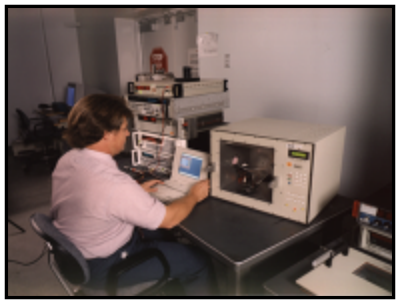
Material Recovery

RAP may call upon other DOE assets

Radiological Assistance Program



Triage



Provides expert analysis of radiation spectral data in the shortest time possible

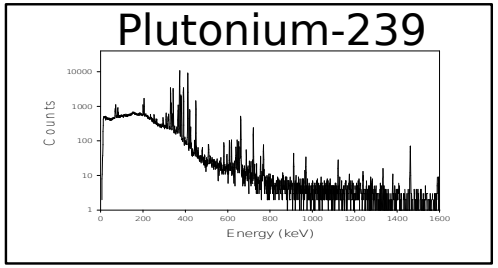
LANL, LLNL, SNL scientists teleconference with emergency responders regarding radiological materials

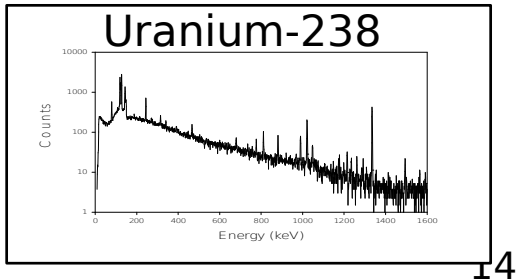
ovides 24 / 7 technical assistance in terpreting radiation spectra collected the field

Quickly Characterize a Source

Recommend Additional Procedures

Confirm Field Analysis





DOE - Consequence Management

- Arial Measuring System (AMS)
- National Atmospheric Release Advisory Capability (NARAC)
- Radiation Emergency Assistance Center/Training Site (REAC/TS)
- Federal Radiological Monitoring And Assessment Center (FRMAC)

Aerial Measuring System

- **Provides helicopters and fixed wing aircraft to respond to radiological emergencies**
- **Aerial radiation surveys and search**

- **Modular capability attaches to Customs P-3**
- **Aircraft located at Las Vegas, NV and Washington, D.C.**

National Atmospheric Release Advisory Center (NARAC)

Access to world-wide weather data and geographical information:

- Observed & forecast weather data
- Terrain & land surface
- Maps
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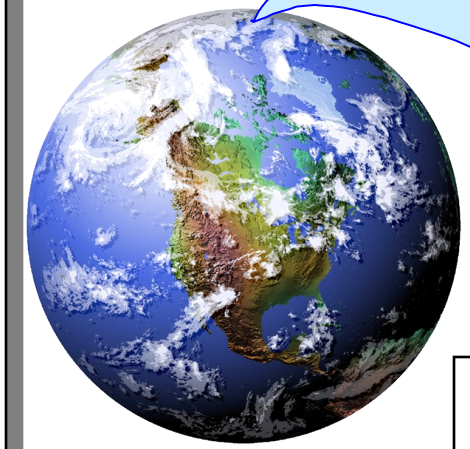
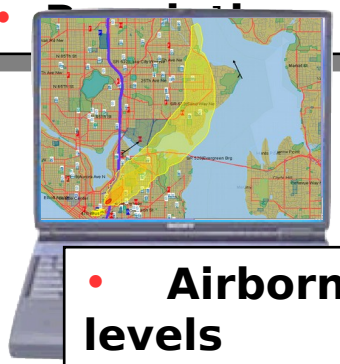


National Atmospheric Release Advisory Center (NARAC):

- 24x7 scientific & technical support
- Robust ops center, computer systems with un-interruptible power
- 3-D plume model simulations of airborne transport of radioactive, chemical, or biological material



- Airborne and ground contamination levels
- Dose projections
- Protective Action guidelines
- Affected population counts
- Geographical information

Radiation Emergency Assistance Center/Training Site

ides 24-hour consultation

adiation-affected health problems

Assistance to Federal, State, Local Governments as well as IAEA, Foreign Governments and Private Physicians

Training Programs for Health Professionals

Maintains "Radiation Accident Registry System". Manages the Cytogenetic Biodosimetry Laboratory.

3-Person Team

Physician

Health Physicist

Nurse Paramedic

Federal Radiological Monitoring And Assessment Center

vides multi-agency operational
nework for coordinating on-scene
itoring and assessments
ng a radiological emergency

CMRT Phase I

Validate Protective Action Guidelines

Gross Field Monitoring & Data Assessment

Coordination with other Assets

31-Person Team

CMRT Phase II

Define where Population Relocation is warranted

Extensive Field Monitoring & Sampling

32-Person Team

CMRT Phase III

Ingestion Pathway Analysis

Detailed Sampling & Analysis

CMHT

Exercises

Initiative: NUWAIX EX **Nuclear Weapons Exercise (Diablo Bravo series and NUWAIX)**

Challenge:

- Conduct DOE-led exercise with significant interagency participation once every 5 years and DoD lead in other years
- Meet requirements outlined in NSPD-28

Action:

- Completed first ever DOE-led nuclear weapon incident exercise involving real-time response to a terrorist attack
- Demonstrated NWAPP and NIMS implementation for nuclear weapon incident response
- Ongoing action to document the exercise lessons learned and track corrective actions
- Implementing Lessons learned into ARDENT SENTRY/NUWAIX-09

Exercises

Initiative: **Consequence Management Exercise (EMPIRE)**

Challenge: Conduct DOE-led consequence management exercise with significant interagency participation once every 3 years

Action:

- Led interagency planning meetings in Albany, NY and NCR with exercise conduct scheduled for June 2009
- Work with DHS/FEMA National Exercise Division to develop Tier II requirements and refine the SIMCELL concept
- Develop an exercise that allows:
  - Demonstration of DOE's ability to lead the FRMAC during a radiological/nuclear incident
  - Assessment of the Concept of Operations for the Consequence Management Response Team (CMRT) Augmentation Phase

Exercises

Initiative: **No-Notice Exercise Program**

Challenge:

- Implement a no-notice exercise (NNX) program to assess readiness of NA-42 assets
- Limited trusted agents with real time deployment and free-play
- Limited planning time

Action:

- Established NNX schedule for FY 2009 based on existing priorities and requirements, and input from NA-42 Program Managers
- Specific areas of emphasis in FY 2009 include:
  - EMPIRE, MARBLE CHALLENGE, ARDENT SENTRY, NLE-10

Generic DoD support for DOE response assets

- **Airlift for DOE response assets, both CONUS and OCONUS**
  - **DOE Assets use an inherent air transport capability.**
  - **DOE has agreements in place with the U.S. Coast Guard and Air National Guard to move a limited number of personnel and equipment.**
  - **DOE would need to rely on DoD air transport for a large scale emergency response.**
  - **DOE would also need support for an OCONUS deployment.**

CY 2009-2010 Exercises

▪PLE 1-09	9 & 13 Jan 09	IED, NEP, NRF, COOP
▪Silver TTX	9-13 Feb 2009	Canadian TTX for Olympics
▪Kazakhstan TTX	24-26 Feb 2009	Nuc Smuggling Prevention
▪Caustic Cloud	17-18 Mar 2009	Northcom CBRNE CM TTX
▪Empire 2009	Jun 1-5, 2009	Radiological Dispersal Device
▪Marble Challenge 09-02	10-12 June 2009	Search, CT, RS, Disposition
▪NUWAIX 09 / AS 09	Jun 22-24, 2009	CT and CM
▪NLE 09	Jul 27-31, 2009	Terrorism Prevention / Intel and Information Sharing
▪Vigilant Shield 10	2-6 Nov 2009	IND (Canada)
▪NUWAIX 10	2-6 Nov 2009	US Nuc Weapon TTX
▪Marble Challenge 10-01	15-21 Nov 2009	RS
▪EPA Liberty Rad Ex	April 2010	Long Term Recovery, RDD
▪NLE 10	17-21 May 2010	IND Post-det CM Response
▪Marble		

Questions